

Renumbered Claims

Appl. No. : 09/743,905
Filed : April 24, 2001

AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method of identifying mutants in a triple gene block 3 (TGB-3) viral sequence which inhibit infection of a virus into a cell, comprising:
 - mutating said TGB-3 sequence;
 - selecting TGB-3 mutants which no longer promote cell-to-cell movement of a (TGB-3 minus) mutant virus when expressed in trans from a replicon;
 - further selecting from the identified mutants those which also inhibit infection with a co-inoculated wild type virus when the mutant TGB-3 is expressed from a replicon; and
 - recovering said mutant TGB-3 viral sequence wherein a mutant TGB-3 sequence recovered from the foregoing selection steps is a mutant TGB-3 viral sequence that inhibits infection of a virus into a cell.
2. (Currently amended) The method according to Claim 1, wherein the TGB-3 wild type viral sequence is the beet necrotic yellow vein virus (BNYVV) P15 sequence.
3. (Canceled)
- ~~3~~ 4. (Currently amended) The A genetically modified TGB-3 viral sequence according to Claim 3, ~~selected from the group consisting of: SEQ ID NOS: 1, 3, and 5 comprising the sequence of SEQ ID NO: 3.~~
- 4, 5. (Currently amended) A vector comprising the genetically modified TGB-3 viral sequence according to Claim ~~3~~ 4. ³
6. (Currently amended) A method for inducing resistance to a virus in a plant or a plant cell comprising:
 - preparing a nucleic acid construct comprising a genetically modified TGB-3 viral sequence according to Claim ~~3~~ 4, operably linked to one or more regulatory sequence(s) active in a plant or a plant cell, and
 - transforming a plant cell with said nucleic acid construct, thereby inducing resistance to a virus in a plant or plant cell.
7. (Previously presented) The method according to Claim 6, wherein the virus is selected from the group consisting of the apple stem pitting virus, the blueberry scorch virus, the potato virus M, the white clover mosaic virus, the *Cymbidium* mosaic virus, the barley stripe

Appl. No. : 09/743,905
Filed : April 24, 2001

mosaic virus, the potato mop top virus, the peanut clump virus, the beet soil-borne virus and the BNYVV virus.

8. (Previously presented) The method according to Claim 6 wherein the plant cell is a stomatal cell.

9. (Previously presented) The method according to Claim 6 wherein the plant is selected from the group consisting of apple, blueberry, potato, clover, orchid, barley, peanut and sugar beet.

11 10. (Previously presented) The method according to Claim 6, wherein the regulatory sequence comprises a promoter sequence or a terminator sequence active in a plant.

12 11. (Currently amended) The method according to Claim 10, wherein the promoter sequence is a constitutive or a ~~foreigner~~ foreign promoter sequence.

13 12. (Previously presented) The method according to Claim 10, wherein the promoter sequence is selected from the group consisting of the 35S Cauliflower Mosaic Virus promoter, the polyubiquitin Arabidopsis thaliana promoter, and both promoters.

14 13. (Previously presented) The method according to Claim 10, wherein the promoter sequence is a promoter active in the root tissue of plants.

16 14. (Previously presented) A transgenic plant or transgenic plant cell resistant to a virus comprising a nucleic acid construct having a genetically modified TGB-3 viral sequence according to Claim 3, operably linked to one or more regulatory sequence(s) active in a plant or a plant cell.

17 15. (Previously presented) A transgenic plant or transgenic plant cell according to Claim 14, wherein the virus is selected from the group consisting of the apple stem pitting virus, the blueberry scorch virus, the potato virus M, the white clover mosaic virus, the *Cymbidium* mosaic virus, the potato virus X, the barley stripe mosaic virus, the potato mop top virus, the peanut clump virus, the beet soil-borne virus and the BNYVV virus.

20 16. (Previously presented) The transgenic plant or transgenic plant cell according to Claim 14 selected from the group consisting of apple, blueberry, potato, clover, orchid, barley, peanut and sugar beet.

18 17. (Previously presented) The transgenic plant or transgenic plant cell according to Claim 14, wherein the regulatory sequence comprises a promoter sequence and a terminator sequence active in a plant.

Appl. No. : 09/743,905
Filed : April 24, 2001

²³
~~18~~ (Previously presented) The transgenic plant or transgenic plant cell according to Claim ¹⁶~~14~~, wherein the regulatory sequence(s) comprise a promoter sequence which is a constitutive or a foreign vegetal promoter sequence.

²⁴
~~19~~ (Previously presented) The transgenic plant or transgenic plant cell according to Claim ²³~~18~~, wherein the promoter sequence is selected from the group consisting of the 35S Cauliflower Mosaic Virus promoter, the polyubiquitin *Arabidopsis thaliana* promoter, and both.

²⁵
~~20~~ (Previously presented) The transgenic plant or transgenic plant cell according to Claim ²³~~18~~ wherein promoter sequence is active in root tissues.

¹⁹
~~21~~ (Previously presented) The transgenic plant tissue of Claim ¹⁶~~14~~ wherein said tissue is selected from the group consisting of fruit, stem, root, tuber, and seed.

22. (Canceled)

⁶
~~23~~ (Previously presented) The vector of Claim ⁴~~5~~ operably linked to one or more regulatory sequence(s) active in a plant cell.

¹⁰
~~24~~ (Currently amended) The method of Claim ~~5~~ ⁶ further comprising regenerating a transgenic plant from the transformed plant cell.

¹⁵
~~25~~ (Previously presented) The method of Claim ¹⁴~~13~~, wherein said promoter active in the root tissue of plants is the par promoter of the haemoglobin gene from *Perosponia andersonii*.

²¹
~~26~~ (Previously presented) The transgenic plant of Claim ²⁰~~16~~, wherein said promoter active in the root tissue of plants is the par promoter of the haemoglobin gene from *Perosponia andersonii*.

²²
~~27~~ (New) The transgenic plant or transgenic plant cell according to Claim ²⁰~~16~~, wherein said transgenic plant is sugar beet or transgenic sugar beet cell.